TRAFFIC SERVICES (300)

301.0 LEVELS OF SERVICE

Traffic services on each state highway route is maintained at a minimum level. There are three levels of service that are determined by the average daily traffic (ADT), accident rate, and the physical features of each route. Refer to the map and definitions in Administrative Policy A-05-07 for further information. (See Figures 301.0-A and 301.0-B)

310.0 PAVEMENT MARKINGS

Pavement markings must comply with the Manual on Uniform Traffic Control Devices (MUTCD) adopted by the state.

311.0 PAINT CENTER LINE AND/OR EDGE LINE

Instructions, drawings and specifications for painting lines and messages are located in the "Pavement Markings" section of the Traffic Manual.

312.0 PAINT AND/OR REMOVE MESSAGES

See Section 311.0, Paint Center Line and/or Edge Line."

313.0 OTHER (BROOMING, SPOTTING, REPLACE RAISED PAVEMENT MARKERS, REFLECTIVE COATING ON BRIDGE ENDS, ETC.)

Instructions on these subjects are located in the MOP Manual, the Traffic Manual, the Standard Specification Book, etc., under headings appropriate to the individual subject.

320.0 GENERAL

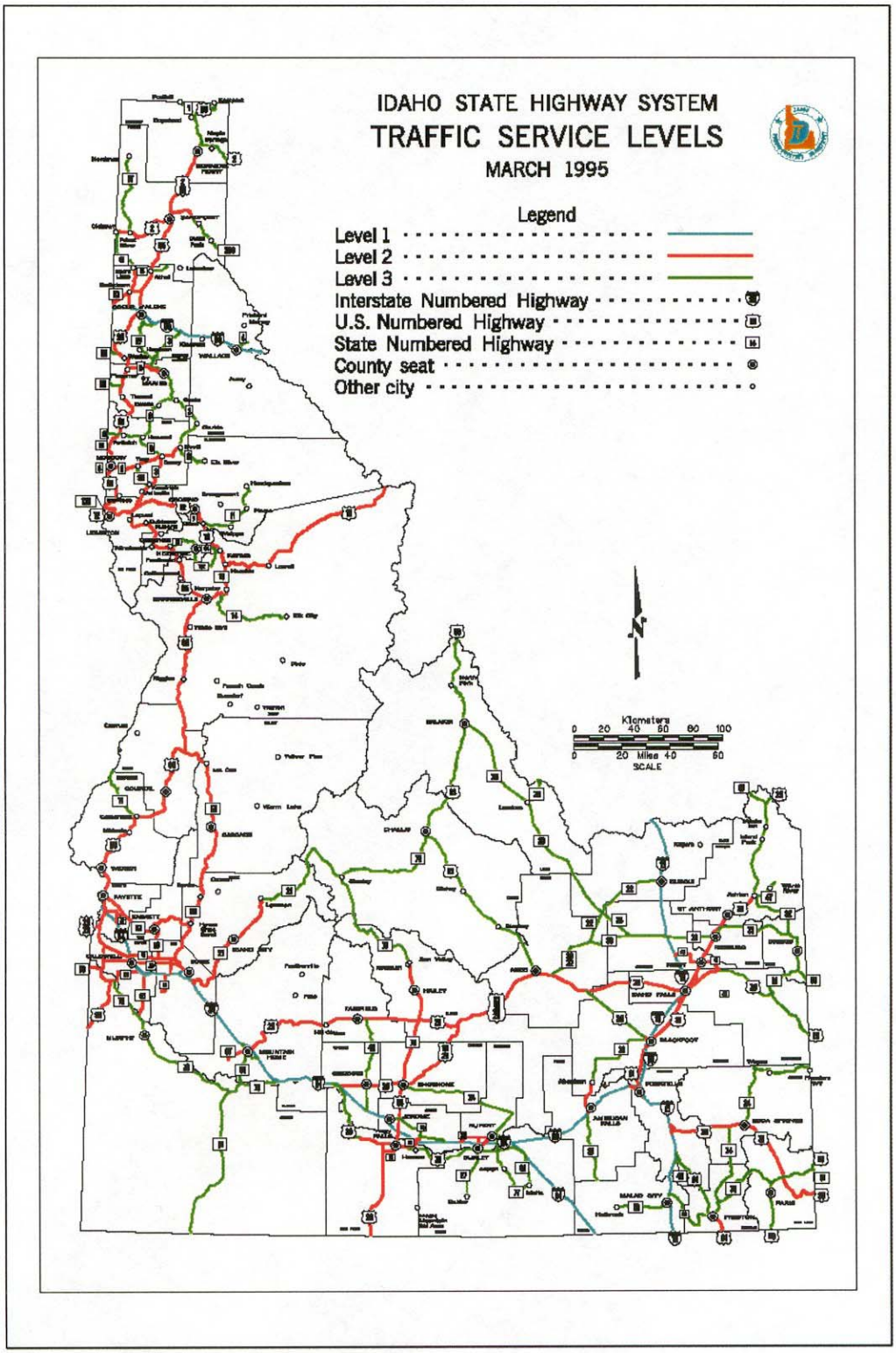
Traffic signs and devices must comply with the Manual on Uniform Traffic Control Devices (MUTCD) adopted by the state.

Figure 301.0-A

TRAFFIC CONTROL DEVICES MAINTENANCE SERVICE LEVELS			
	LEVEL 1	**LEVEL 2**	**LEVEL 3**
PAVEMENT MARKINGS	Continuous edge, center and lane lines. Highly visible both day and night. See Traffic Manual 12-202 Significant loss of pavement markings should be repaired within 15 days weather permitting.	Same as Level 1. Significant breaks in pavement markings must be repaired during striping season. Edge lines restriped not more than half as often as centerlines.	Same as Level 1, except only use edge lines where road widths are 22 feet or greater and shoulder condition is adequate to maintain lines. See Traffic Manual 12-202. Breaks in pavement markings tolerated not more than one striping season. Edge lines restriped only when needed to restore visibility.
SIGNING	Replace signs when retroreflectivity/legibility is noticeably deteriorating. See Maintenance Manual 5-321.	Replace signs when retroreflectivity/legibility is marginal. See Maintenance Manual 5-321.	Replace signs when legibility is marginal. See Maintenance Manual 5-321.
DELINEATORS	Delineators on curves, transitions and intersections should be repaired or replaces within 180 days. Delineators on tangents should be repaired or replaced when approximately 10% are missing or have lost retroreflectivity.	Same as Level 1. Delineators on tangents should be repaired or replaced when approximately 25% are missing or have lost retroreflectivity.	Same as Level 1. Delineators on tangents should be repaired or replaced when approximately 25% are missing or have lost retroreflectivity.
TRAFFIC SIGNALS	Treat all signals alike. Repair or replace within 30 days when damaged or not working.	Same as Level 1.	Same as Level 1.
LUMINAIRES	Treat all Luminaires alike . Repair or replace within 30 days when damaged or not working.	Treat all Luminaires alike . Repair or replace within 60 days when damaged or not working.	Treat all Luminaires alike . Repair or replace within 90 days when damaged or not working.
BARRIERS (Guard rails, Bridge rails, Attenuators, Barricades, etc.)	Repair or replace within 15 days when structurally damaged. See Maintenance Manual 5-324.	Repair or replace within 30 days when structurally damaged. See Maintenance Manual 5-324.	Repair or replace within 90 days when structurally damaged. See Maintenance Manual 5-324.

Figure 301.0-B

TRAFFIC SERVICE LEVELS



321.0 SIGN REPAIR, REPLACEMENT OR NEW INSTALLATION

Instructions for proper positioning and erection of signs are contained in the Traffic Manual under "SIGNS."

Damaged, disturbed or missing signs critical to traffic operations and/or traffic safety must be promptly replaced or temporarily repaired until permanent repairs are possible. Report repairs, replacement or new installations on ITD-2668 "SIGN MAINTENANCE REPORT" or ITD-2684 "SIGN MAINTENANCE FIELD REPORT."

The District establishes suitable schedules for inspection, cleaning, and replacement. Inspect all signs at least once a year under daylight, and once a year under nighttime conditions. Clean them if necessary. Maintenance patrols make routine sign inspections as a part of their daily activities; other traveling personnel should be instructed to report any damaged or obscured signs immediately.

Sign bridges, cantilevered signs and overhead sign mounts require inspections and preventive maintenance to the full structure, its base and the sign mounting hardware at least every 5 years. Maintenance foremen and sign crews need to coordinate to ensure that this is accomplished.

Remove vegetation that might obscure a sign.

Sign maintenance on U.S. Forest Service lands is subject to the provisions of the current memorandum of understanding on procedures related to State highways over national forest lands. A copy of this memorandum is on file at each District office.

321.1 Illegal Encroachments

An illegal encroachment is any unauthorized use of ITD right-of- way. This can include:

- Mobile stores, mobile lunch wagons or similar businesses that stop vehicles to offer for sale or sell their wares.
- Solicitations or sale of any goods or services, attempts to serve, distribute, petition or recruit, and all associated stopping, standing or parking of vehicles, except Department-approved vending privileges in safety rest areas.
- The storage of any substance, equipment or material, including but not limited to logs, lumber, supplies or aggregates.
- The abandonment of vehicles or other large objects.
- Servicing, refueling and repairing of vehicles, except for emergencies.
- The placement of portable objects or signs, displays or other unapproved highway fixtures.
- Permanent, temporary or mobile structures, manned or unmanned.
- Any obstruction that creates a traffic hazard, including trees, shrubbery, fences, walls, non-standard mailbox stands or other appurtenances.

- Signs or displays that resemble, hide or because of their color, interfere with the effectiveness of traffic signals and other traffic control devices.

Portable objects or signs, memorials, urban improvements, landscaping, farming, irrigation or drainage, mailbox stands or turnouts, recreational parking facilities, park-and-ride lots, and school bus turnouts shall have an approved State highway encroachment permit. Permanent, temporary, or mobile structures, manned or unmanned, or the storage of materials, equipment, or supplies not included in an approved State highway encroachment permit or approved as part of a Department construction project shall not be allowed within the State highway right-of-way. Displays shall not be placed within State highway rights-of-way on structures, trees, rocks, or utility poles, except that election posters/materials may be affixed to private fences bordering the highway right-of-way and to utility poles bordering or within the highway right-of-way when written permission is obtained from the owners of such fences or utility poles. (See Standards and Procedures for Election Posters within the Highway Right of Way in the Traffic Manual)

The District Engineer is responsible for ensuring compliance with all applicable laws and ITD policies relating to the removal or correction of unauthorized and non-standard encroachments. Approaches and other encroachments on the State highway rights-of-way that are installed without an approved State highway right-of-way permit, or not constructed in accordance with the Department requirements as stated in the permit, or are naturally occurring adjacent to the State highway right-of-way line and create a hazard, are prohibited and may be removed or their use may be suspended until corrective action is taken. The application process shall be immediately initiated when applicable or the encroachment removed when such a permit cannot be approved.

The area Maintenance Foreman shall identify and contact the owner of the unauthorized or non-standard encroachment to orally request a plan for immediate corrective action. The actions taken to locate and notify the owner shall be recorded in the Foreman's diary. When notice is given, use form DH-776.

Non-permitted encroachments are unauthorized shall not be allowed to remain without an approved right-of-way encroachment permit. The application process shall be initiated immediately, when applicable. If the encroachment is such that a permit cannot be approved, the encroachment shall be removed.

Failure to remove the encroachment within forty-eight (48) hours shall be followed by a certified letter from the District Engineer requesting removal within ten (10) days. If the encroachment is still not removed, the District Engineer shall contact the Legal section to initiate legal action. The District Engineer may order District personnel to take immediate corrective action when time is of the essence.

The applicant may be held liable for injury or damages caused by the unauthorized or non-standard encroachment. The Department shall make no reimbursement for removal of unauthorized or non-standard encroachments nor shall compensation be made for any losses that may arise from their removal. The Department may initiate

legal action to recover costs for the removal of unauthorized or non-standard encroachments.

322.0 EMERGENCY MAINTENANCE

322.1 Road Closure

The authority for State highway closures is contained in section 40-310, *Idaho Code,* and Administrative Policy A-05-34. The State Highway administrator or the District Engineer is responsible for closing or restricting the use of any state highway whenever such closing or restricting is deemed necessary for:

- The protection of the public
- The protection of the highway or any section thereof from damage.

In the event of any incident or unusual failure of a segment of the highway caused by floods, mudslides, snowslides, snowstorms, earthquakes, volcanic eruptions, tornadoes, hurricanes, destructive winds, fires, major accidents, etc., which may cause a sudden disruption on transportation services or which may affect the safe passage of vehicles, the District Engineer or his designee will take action immediately to close the road. When it becomes apparent that a section of road will need to be closed, the District will take prompt action in the following order:

- Assess the damage
- Notify the State Communication Center(State Com) to initiate the notification process as described in the Road Closure Section of the Dispatch Manual.
- Start emergency repairs to open the road, alternate route or bypass.
- Coordinate traffic control with State police and/or local law enforcement officials.
- Check the section to be closed to make sure it is cleared of all motorists.
- Establish proper signing, barricades, detour instructions, and turnaround space, in accordance with the MUTCD as adopted by the state. Although Type I barricades are allowed by MUTCD in emergency situations, Type III barricades should be used for winter road closures wherever possible. Advance warning of the closure at the nearest major crossroad should be signed in order to give motorists adequate opportunity to turn back or alternative available routes.

  Appropriate barricades and signs should be readily available for routes that are frequently closed in winter. Reflectorized signs should be placed at the

nearest town on both sides of frequently closed heavy snow routes to advise motorists whether the road is open or closed.

Each district will maintain a log of all road closures to document the section closed, time and date closed and opened, reasons for closing, and other pertinent data. When a road is to be reopened(at the discretion of the District Engineer), remove all signs, barricades, and other instructional signs. Notify State Com to initiate the reopening notification process as described in the Road Closure Section in the Dispatch Manual.

Do not deviate from the above procedures when closing a road , except for short term closures of less then 2 hours, in which case the District should use their own discretion on the notification procedures. Also, law enforcement personnel may, at their discretion, enforce temporary delays, and may inform the news media of road and weather conditions, and issue traveler's warnings whenever conditions warrant such action.

- If the road cannot be opened within two(2) hours, full closure procedures should be implemented.

- Request technical assistance from Headquarters through the Maintenance Engineer.

The immediate actions of the District Engineers and their staff are very critical for responsible protection of the public traveler, commercial haulers, highway personnel, highway equipment, roads, bridges, etc. The public image is affected by these immediate and proper actions or reactions to provide maximum service during any emergency.

The Headquarters staff shall assist the Districts during any emergency as follows:

- Maintenance – Coordinate the technical team assignments.

    - Coordinate road equipment needs and movement of equipment from other Districts.

    - Initiate an information system for management and staff.

- Traffic, Bridge, Right-of-Way - Provide technical assistance as requested by Maintenance

- Public Information Office – Coordinate all news releases.

The prompt actions taken will be the determining factors for being eligible for federal aid, disaster relief funds, etc (See Section 10.8). Properly executed and prompt field reports from the District Engineers are required, as shown in Figure 322.1

322.2 Hazardous Materials

See Section 52, Hazardous Material/Chemical Spills.

Figure 322.1
SAMPLE FIELD REPORT
CATASTROPHIC FAILURE

1. General Discussion
    a. Date of occurrence
    b. General discussion of failure
    c. General discussion of impact on travel
    d. Estimated cost of repair
2. Detailed Supporting Information
    a. Major element or segment of system
        (1) Importance of route
        (2) Availability of alternate routes
        (3) Traffic data
    b. Nature of failure
        (1) Cause of failure
        (2) Description of actual physical failure to traveled way
        (3) If a bridge is involved, a description of the bridge
3. Photographs

322.3 Bridge Closure

In the event of emergency bridge repair due to floods, collision, or any other circumstance which materially affects the safe passage of vehicles, the District Engineer will temporarily close the structure. A permanent closure may result after the Bridge Engineer has evaluated the damage. If the serviceability of a structure is in doubt, temporarily close it.

As soon as the extent of damage and the method of repair have been determined, begin emergency repair immediately if the structure can be adequately repaired with State forces. In the event of major damage, which cannot be handled by State forces, negotiation shall begin for contract repair. Coordination between the District and Headquarters will be expedited to accomplish the repair with a minimum of delay and commensurate with good construction practices.

322.4 Railroad Closure

Take the following action when you find it necessary to stop a train because of an emergency condition existing at a railroad crossing on the State Highway System:

- Mark the obstruction so that it is visible to both railroad and highway traffic. Notify District Office or State Communications (1-800-632-8000) so that they can relay the message to the railroad company(s). At most crossings there is an emergency number posted at the crossing. Call the emergency number to inform railroad of the closure.

- After marking the immediate emergency area in accordance with Section 51.4, "Traffic Control Plan", place a red flag or fusee in between the rails in both directions 1610m (1 mile) from the point of obstruction. Place the first flag or fusee in the direction of "**down grade**" train travel, short sight distances for train crewmen, or the direction from which the first train is expected. Locate the flag or fusee so that the train crewmen will have as much advance warning as possible preferably between the rails.

- If time and conditions permit, place another warning device 805m (1/2 mile) beyond the first warnings in both directions along the track.

- Return to the emergency area and begin clearing the obstruction. Call for additional help if the situation is beyond your capabilities.

- Remove all warning devices after the obstruction or danger has been cleared or rectified.

322.5 Closure of Road to Extra-length Combinations, Mobile Homes, Modular Housing and Buildings

The District Engineer may restrict or prohibit the operation of the subject vehicles when road conditions become sufficiently hazardous. Hazardous conditions may be

due to ice, snow or frost; visibility restricted by fog, dust, smoke, smog or other atmospheric condition; or extreme wind velocities. Additional information may be obtained from the ITD Permit Manual, Rules 39.C.11, 39.C.22 and 39.C.23.

When it is determined by the District Engineer or his designee that traffic, weather or other safety concerns make operation of the subject vehicles unsafe or inadvisable, the standard road closure notification and documentation procedures shall be followed as outlined in Section 322.1 of the ITD Maintenance Manual. Additional notification shall be made to the Idaho State Police District Office and District POE Supervisor.

POE personnel will **not** initiate extra-length road closures but together with ISP they will be responsible for actually enforcing the vehicle restriction. If POE or other ITD personnel are aware of conditions which make operation of the subject vehicles and loads unsafe, the appropriate District Office should be notified immediately. Prompt notification when normal travel may be reestablished is also important. As usual, good communication of changing weather conditions will also be valuable.

322.6 Alert Bulletins

Report highway-related catastrophes of a local or regional nature and events of a lesser nature that threaten the full use of the highway to the District Office as soon as possible. Included in this category are major accidents involving multiple fatalities, bomb threats, or incidents that cause a major highway to be partially or totally closed for at least two hours.

Give as much information as possible about the situation, such as highway number and location, cause of traffic interruption, who is involved, when it occurred, how long it might be expected to last, any dangerous materials involved, etc. **Never place yourself in personal danger or interfere with investigating officials to obtain this information.**

The District should immediately notify the Maintenance Engineer or the Assistant Maintenance Engineer. The reports are screened by the Maintenance Section and transmitted to the Chief Engineer, Public Information, Permit Section and the Idaho Division Office of FHWA, who in turn notify their Washington, D.C. office.

322.7 Informative News Releases

The District Engineer shall immediately, or as soon as practical, advise the public, through the news media of all road closures. The news release shall give the time of the closure, expected length of closure, the plans to remove the impediment or correct the problem, what options are being considered, what problems are encountered, how and when we propose to resolve the problems, best possible bypass route and any other available detours.

Informative news releases shall be issued daily for the first week, three times for the second week, and as needed thereafter to report the progress on the corrective actions.

Copies of each of the news releases shall be forwarded to the Maintenance Engineer, Director, Public Information Office and State Highway Administrator.

323.0 TRAFFIC SIGNALS AND LIGHTING

Instructions for this activity are contained in the Traffic Manual under "Traffic Signals" and "Illumination."

Traffic signals and overhead illumination require inspections and preventive maintenance to the full structure, its base and the mounting hardware at least every 5 years. Electricians and sign crews need to coordinate to ensure that this is accomplished.

324.0 GUARDRAIL REPAIR OR REPLACEMENT

When a portion of guardrail not meeting current standards is damaged, consider upgrading it at the time of repair. Bring damaged terminal sections to current standards if materials are compatible and site conditions are favorable. Secure guardrail ends to the parapet at bridges if that portion of the guardrail requires repair and if such securement is practical. If substantial portion of a single run of guardrail is damaged, consider bringing the entire run up to current standards or consider other alternative which could eliminate the necessity of the guardrail.

325.0 DELINEATORS, SNOW POLES AND OBJECT MARKERS

325.1 Delineators

Delineators are to be maintained at the level of service identified on the TRAFFIC CONTROL DEVICES MAINTENANCE SERVICE LEVELS map and accompanying Figure 301.0-A in this manual. Spacing and installation should conform to the standards set forth on Standard Drawing G-3. In addition to the standards set forth on drawing G-3, delineators shall also be installed on interstate median crossovers which have been left in place after construction projects. The crossovers shall have amber Delineators installed along the left side of roadway at approximately 30 meters (100 ft) spacing across each entrance throat of the crossover. All delineators must meet the current specifications outlined in the MUTCD as adopted by the state.

325.2 Snow Poles

Snow poles may be installed where the snow frequently exceeds two feet in depth or where drifting snow conditions are prevalent. They are not normally required on tangent sections.

Spacing and installation should conform to the requirements set forth on Standard Drawing G-4. On crest vertical curves, adjust the spacing so three snow poles are visible at any one time.

Snow poles with white reflective sheeting are installed on the right side through roadway alignment when required. Snow poles with yellow reflective sheeting are installed on the left side to mark intersections and median crossovers when required.

On specific highway sections it is possible to decrease the number of snow poles by installing them only on the outside edge of the roadway providing the inside edge is adequately delineated by terrain (mountain side slope) to protect against vehicles leaving the roadway.

325.3 Object Markers

Use an OM-2 object marker or series of markers to indicate unexpected temporary hazards near the roadway, such as eroded shoulders, or other problems requiring maintenance.

Do not use object markers as Delineators.

326.0 CLEANING SIGNS, GUARDRAILS AND DELINEATORS

See Section 321, Sign Repair, Replacement, or New Installation.

330.0 WINTER MAINTENANCE GUIDELINES

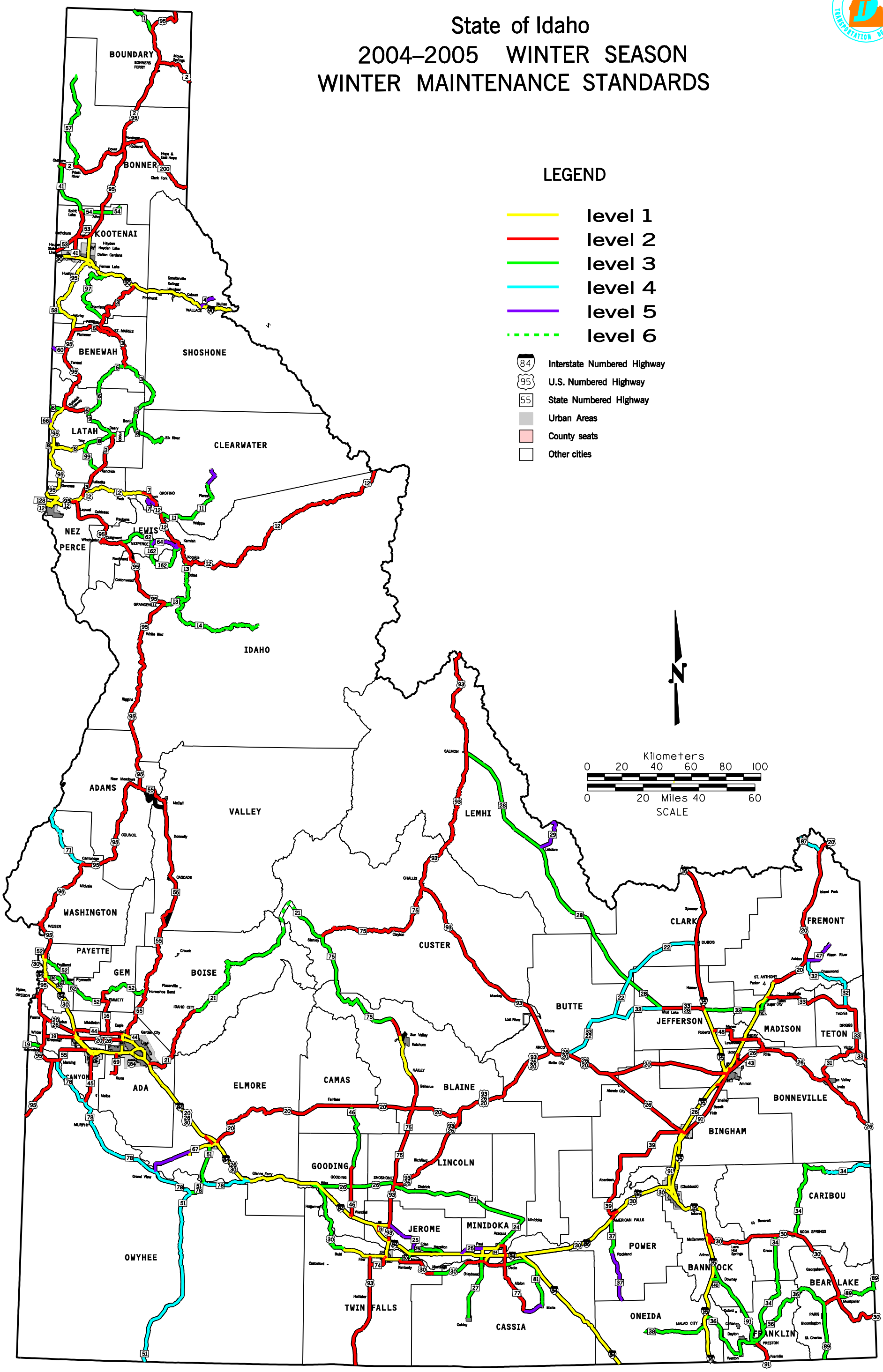
Winter maintenance is all work associated with snow or ice removal operations and winter storm patrol. The objective of winter maintenance operations is to provide a reasonably passable route for the highway user commensurate with ITD Administrative Policy A-05-06 and within available funding and resources. It is **not** the intent of these standards to maintain a bare pavement, and no guarantee as to the condition of the resulting road surface is implied. During periods of rain, snow and freezing weather, the highway user must be prepared for less than ideal driving conditions due to rapidly changing weather conditions.

Refer to the current Winter Maintenance Standards map, Figure 330.0-A, and the definitions, Figure 330.0-B, for the current standards. As stated in A-05-06, the District Engineers have the discretionary authority to maintain state highways at levels greater than the minimum requirements, provided the increased maintenance activity can be accomplished within budget constraints. Annual reviews are conducted to determine benefits versus costs of changing winter maintenance standards for each section of highway. As part of the annual review, the District Maintenance Engineers should coordinate with the Maintenance Engineers from adjoining districts and states to provide continuity along routes within resource availability.

330.1 Advance Preparations

The District Maintenance/Regional Engineer and Foremen shall make advance preparations so that sufficient men and equipment will be ready and in position to start snow removal work at the beginning of the first storm. Arrangements should be made in advance for sufficient operating personnel to relieve crews and thus avoid long working hours. Normally 12 hours worked in any 24 consecutive hours is the maximum that should be permitted.

State of Idaho
2004–2005 WINTER SEASON
WINTER MAINTENANCE STANDARDS



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ITD - GIS 08/02/2004

Figure 330.0-B

WINTER MAINTENANCE STANDARDS DEFINITIONS

The map identifies levels of winter maintenance service approved by the Idaho Transportation Board for those routes on the State Highway System not covered by a separate city or county maintenance agreement.

Plowing and sanding activities will be accomplished as follows:

LEVEL 1 (YELLOW)	Remove snow continually during storms to keep the roads open to traffic and provide a reasonable surface on which to operate, except when blizzard, avalanche, or other severe forms of weather make conditions such that maintenance and motor vehicle operators cannot reasonably negotiate the travelway. Keep at least one lane in each direction open during the storm. Clear the remaining lanes and shoulders after the storm ends. Patrols may be established in areas where surveillance is desirable. When effective, apply chemicals or abrasives, separately or in combination, to enhance traffic safety. Continue efforts until a trafficable condition exists.
LEVEL 2 (RED)	Remove snow during storm to keep roads open to traffic, except when blizzard, avalanche, or other severe forms of weather make conditions such that maintenance and motor vehicle operators cannot reasonably negotiate the travelway. Snowpack left by plows need not be removed until thawing conditions exist, or the pack becomes so thick as to constitute a traffic hazard when it thaws. Remove the pack and widen the travelway during regularly scheduled working hours, except that overtime may be authorized by the District Engineer if he determines it to be economically feasible. Patrols may be established in areas where conditions make surveillance desirable. When effective, apply chemicals or abrasives, separately or in combination, to enhance traffic safety on steep grades, sharp curves, bridge decks and approaches, intersections, known high accident locations, etc.
LEVEL 3 (GREEN)	When manpower and equipment are available, remove snow during the storm to keep the roads open to traffic, except when blizzard, avalanche, or other severe forms of weather make conditions such that maintenance and motor vehicle operators cannot reasonably negotiate the travelway. Additional snow removal shall be accomplished during regular working hours. Generally, chemicals and abrasives are not used, but may be applied at specific locations under unique or extraordinary circumstances. These routes may be posted to indicate limited maintenance.
LEVEL 4 (LIGHT BLUE)	Remove snow during the storm only when manpower and equipment are not being utilized to clear other routes. These routes may be closed for an extended period of time until resources are available to plow the travelway. Winter maintenance shall be accomplished during regularly scheduled working hours on these routes. Chemicals and/or abrasives are not used; if surface condition becomes too hazardous for traffic to reasonably negotiate, the section should be closed. When temporary closures are required, signing, notification of authorities, etc., are accomplished in accordance with the Maintenance Manual. These routes will be posted to indicate limited maintenance.
LEVEL 5 (BLUE)	Low volume state highways maintained during the winter at a level uniform with adjacent local jurisdiction roads.
LEVEL 6 (GREEN/ WHITE STRIPE)	These routes shall be maintained at a Level 3 standard until the first danger of avalanche exists. At the on-set of avalanche danger, the road segment shall be closed and remain closed until all danger of avalanches has ended.

Prior to winter maintenance operations, every effort should be made to assure that equipment is in top operating condition. Extra care should be taken to insure that all safety equipment is in proper working order.

330.3 Limited Winter Maintenance

In accordance with the approved Winter Maintenance Standards, Level 4 highways may be posted to indicate that snowplowing will be limited to daytime hours. The following sign legend is recommended for this purpose:

"Normal Snow Removal 6 a.m. - 6 p.m."

"Travel at Your Own Risk"

Another sign underneath indicates the limits of this restriction:

"From _____ (town) to _____ (town)"

330.4 Snow Removal Equipment

The District Maintenance Regional Engineer shall be responsible for determining the need for and assignment of snow and ice removal equipment. The assignment of equipment, as well as personnel, for winter operations shall be based on the approved level of service designations for highways within a given maintenance area.

Proper storage and servicing of equipment between storms will maximize equipment resources. Equipment shortages may be expected during heavy or long-duration storms due to breakdowns and the limited supply of snow removal equipment.

Coordinate new ideas or programs for utilizing men, equipment, and materials to improve snow and ice control techniques through the Maintenance Regional Engineer. Creativeness is encouraged at all levels for improvement of existing policies and procedures.

330.5 Railroad Grade Crossings

When performing winter maintenance on at-grade railroad crossings, care should be taken to minimize the deposit of ice, snow, anti-skid material, or other debris on the crossing. Slow or stop snow removal equipment as necessary before crossing to avoid damage to the equipment and/or the crossing. Be alert for approaching trains or railroad equipment.

- Stop all heavy equipment before crossing and proceed only when safe to do so.
- Always raise the nose of the snowplow or blade to clear rails and planks on the crossing.

- Immediately notify railroad authorities and provide warning for railroad users when crossings cannot be left reasonably clear or when damage may have occurred due to the snowplow or blade striking any part of the crossing.

- Sanders should be shut off at rail crossings to prevent filling of the flangeways.

When performing winter maintenance on structures that span over railroad tracks, or other facilities, avoid dropping anything over the edges of the structure.

331.0 PLOWING AND APPLYING CHEMICALS AND/OR ABRASIVES

331.1 Winter Maintenance Standards

Standards for winter maintenance have been established, approved by the Board and are explained in detail in Figures 330.0-A and 330.0-B of this manual. These standards are based on the criteria of traffic volume; an accident reduction cost/ benefit analysis; the number of potentially hazardous areas such as steep grades, sharp curves, intersections and ramps; and availability of resources. The intent of the standards is to provide reasonably passable routes for the highway user during winter-like conditions commensurate with available funding and resources. The assignment of these standards will be reviewed and updated each year.

> There is flexibility built into these standards. District Engineers have the discretionary authority to maintain state highways at levels greater than the minimum requirements. In other words, it is permissible to use overtime to plow a level 2 route if the District Engineer determines there is a sufficient reason. Application of sand/salt to specific locations of a Level 3 route is allowed with permission, although chemicals and/or abrasives are generally not used.

331.2 Snow and Ice Removal

Generally, snow and ice should be moved to the right from centerline to the shoulder. Plowing from centerline (rather than from the inside wheel path) will minimize the build up of a packed centerline berm. A centerline berm may prolong icy conditions in the travel lanes during later freeze-thaw cycles and may also create a hazard to vehicles crossing the centerline to turn or pass. During long-duration or heavy snow storms, manpower and equipment availability may limit immediate snow removal to one pass adjacent to the centerline in each direction (truck climbing-lanes should also be maintained). A second pass in each direction to move snow on to the shoulder should be completed as soon as conditions permit. Doubling up with snowplows may be a good alternative if resources are available.

In some urban areas it may be necessary to plow snow to the center of the road or all to one side for later removal. A two-way plow should be used when moving snow to the center or one side of the roadway. Avoid operating snow removal equipment

against opposing traffic unless the area is under adequate traffic control. Street and highway intersections should be cleared to provide reasonable sight distance under the given conditions.

When a thick snow floor builds up under traffic, many times partial melting ("rotting") and/or the use of traction devices will produce a rough, uneven surface. Snowplowing over such a surface can be extremely hazardous and it should be dealt with as soon as resources become available. A motor patrol equipped with an ice bit can be used to smooth the surface, but it should not be used to completely remove the snow floor due to the possibility of scoring the underlying mat.

A rule of thumb for snow floor removal is: if the ambient air temperature reaches 13.9°C (25°F) by 9:00 a.m., there is a good possibility that application of liquid deicing chemicals at that time will be effective in total snow floor removal later in the day. The ultimate removal of snow floor build up can be greatly accelerated if the roadway surface receives an application of sanding material and/or chemicals before the storm begins. A good deal of this material will remain on the roadway even after successive plowing (see Section 331.2.1, Snow and Ice Control Using Liquid Chemicals).

The operator is responsible for discharged snow when operating snow removal equipment. A good deal of care must be taken to avoid damage to adjacent vehicles or property. Overpass structures require special attention to insure nothing is dropped on the underlying roadway.

Snow removal operations often leave a windrow of snow across roadway approaches. Operators should attempt to minimize inconvenience to property owners, but the first obligation is to provide a reasonably possible route for the highway user. If equipment and personnel are available after the highways are reasonably safe for motorists, operators may remove the windrow of snow from established parking areas on the highway right-of-way and from private approaches. However, in no case is snow removal from an entire driveway required.

When weather conditions improve and pavements bare up, the recommended practice is to remove as much of the accumulation of snow from the shoulder of the road as possible. This practice will greatly reduce the amount of moisture entering the base and subgrade from the shoulder. Maintenance operations to remove snow from the shoulder should be conducted during daylight hours only. Traffic control should be provided in accordance with the M.U.T.C.D. Manual.

331.2.1 Snow and Ice Control Using Liquid Chemicals

There are three basic uses for liquid freeze point depressant (LFPD) chemicals for winter road maintenance; anti-icing, deicing and for pre-wetting of anti-skid material. Each of these methods has been shown to be cost-effective if used properly and under the right circumstances. The following gives a brief description of when and how to use each method.

Anti-icing is a snow and ice control strategy for prevention of a strong bond between frozen precipitation or frost and a pavement surface by a timely application of a

LFPD, such as liquid Magnesium Chloride (MgCl). Anti-icing is a proactive approach to snow and ice control that, when used correctly and under the right circumstances, can improve the service levels, reduce maintenance costs and provide other benefits compared to conventional plowing and sanding.

To use a LFPD effectively in an anti-icing strategy requires good judgment and knowledge on the part of the maintenance manager. The keys to a successful program are having accurate weather information, developing proper strategies for the particular area, knowledge about the chemical you are using and using proper application methods. Before initiating an anti-icing program seek advice from other Foremen or Maintenance Engineers who have experience with anti-icing or attend training on anti-icing.

When anti-icing, the LFDP is applied as a pretreatment before a storm or frost is expected to form. Applying the LFPD in this way is most effective because it forms a barrier between the pavement and the ice or snow. When a pretreatment application has been sprayed on to the pavement it will generally stay there, up to several days, until it is washed off by rain or snow melt. This fact makes using an anti-icing chemical in frost prone areas particularly cost-effective because one application may be enough to keep frost from forming for three or four days under the right conditions.

Typical initial applications are in the range of 20-30 gal/ln-mile. This application rate is enough to provide a very thin coating over the pavement surface but it is not enough to make the material begin to run off the road. Careful monitoring needs to be done as the storm continues in order to determine when and if additional applications are needed or to shift into a more standard snow and ice control strategy (i.e., plowing and sanding). The total amount of material sprayed throughout a storm in subsequent applications will depend on the pavement temperature, the amount of snow, the water content of the snow, level of service and the LFPD used.

Because of the potential for slippery conditions to be caused by misapplication of liquid anti-icing chemicals to pavement, the following guidance should be utilized:

Applying anti-icing chemicals and humidity

There is the potential for liquid anti-icing chemicals to transform from liquid to solid and solid to liquid. This “slurry” phase takes place quickly and is short in duration. The greatest potential for a slipperiness problem is when temperatures are in the 40’s and the relative humidity between 45% and 50%. Research shows the common denominator for most incidents investigated are temperatures between 40 and 54 degrees F (most often at 46 F) and a relative humidity of approximately 45-50%. The slurry transition phase can also occur at relatively low humidity levels (below 35%). These conditions typically occur in the fall and generally involve an application of liquid anti-icing chemical prior to the first freezing event of the season. Therefore:

1) Users should not apply anti-icing liquids for a winter event if the air temperature is above 40 degrees with a relative humidity of 45 to 50 %. If

these conditions exist, delay the application until temperatures drop.

2) If humidity is (or expected to drop) below 35%, application rates should be reduced to one-half the normal rate.

3) Most occurrences of slipperiness involved an application made between noon and 3pm. If it is necessary to make an application around these times, temperature and humidity levels must be verified prior to applying.

Applying anti-icing chemical after an extended dry spell

When a liquid anti-icing application has been made after a long dry spell, the build up of oil-based residuals left from vehicles and the application of a liquid to the roadway can produce a slick surface. This is very similar to a light rain shower on a roadway surface after an extended dry spell. The chemicals used for anti-icing are heavier than water may displace any petroleum-based residuals on the roadway surface. The chemical itself may not cause the slipperiness, but may be a contributing factor in a reduced friction surface.

Therefore users should be cautious when applying anti- icing liquids after an extended dry spell. Using lower application rates may reduce the risk of slipperiness developing under these conditions.

Multiple applications

If anti-icing liquid chemicals are being applied on multiple back-to-back applications, the application rate should be reduced on subsequent applications. Reducing the application rate will prevent excess buildup of chemical on the roadway. The rate should not be reduced if excess moisture or high traffic volumes have diluted the initial application.

One method that can be used to build a history of anti-icing applications for different storms in a particular area is by using a T.A.P.E.R. log (Figure 331.2.1). TAPER stands for **T**emperature (temperature of pavement), **A**pplication rate, **P**roduct used, **E**vent (duration and amount of precipitation), and **R**esults. By tracking these five factors for each storm in a particular area, the maintenance manager can learn how to define what application rates will work in their areas of responsibility for different storm events.

The equipment used for application of an LFPD is typically a Water Distributor or Herbicide Application truck or other truck that has been modified for the application of an LFPD. The tanks can be stainless steel or plastic and should be large enough to hold the quantity of liquid needed to cover a road section circuit without running out of LFPD. The trunks should be equipped with application rate controls that are, preferably, ground speed controlled. Stream nozzles are recommended over spray nozzles because they can be used for both anti-icing and deicing. While spray nozzles can be used for anti-icing, they should not be used in a deicing situation due to the potential refreeze into ice across the entire road surface.

As with other tools used for highway maintenance, anti-icing needs to be used properly and in the right situations. Some of the circumstances where anti-icing should **not** be used are in extremely cold [-7°C (20°F)] and falling temperatures or when blowing, drifting snow is present. Generally, light powdery snow will not stick and accumulate when pavement is cold. Traffic and wind may be enough to blow snow off the roadway. When pavement is cold and dry, applying LFPD will make the roadway wet, causing the dry snow to stick to the roadway and begin to build-up.

Another circumstance to avoid is applying chemical at an anti-icing rate 20-30 gal/ln-mile to a snow floor. This can cause an initial melting then a refreeze that can be extremely slick. Melting of the snow floor can be done safely with LFPD, but the rate is much higher and anti-skid material is used in conjunction (see *Deicing* below).

Deicing using LFPD is a procedure that can be used to melt an accumulation of snow or ice that has become bonded to the pavement surface. Unlike anti-icing, deicing is a reactive procedure and the quantity of LFPD needed is much higher than in anti-icing. Deicing may take quantities of over 100gal/ln-mile.

Generally, there is a good probability that application of LFPD will result in total snow floor removal later in the day, if the air temperature reaches -5°C (25°F) and are raising by 9:00 a.m. In a deicing application the LFPD should be applied with stream nozzles to enable the concentrated chemical to drill through the snow pack to begin working on breaking the ice/pavement bond. It is recommended that anti-skid material be applied to the snow surface at the same time as the chemical because as the chemical begins to work on the snow floor, slick conditions can develop and continue until complete removal of the pack. Close monitoring of the operation is required to ensure additional LFPD or anti-skid materials are applied, if needed, and the loose snow or chunks of ice are plowed off the roadway on a timely basis.

331.2.1.1 Anti-Icing Storage and Handling

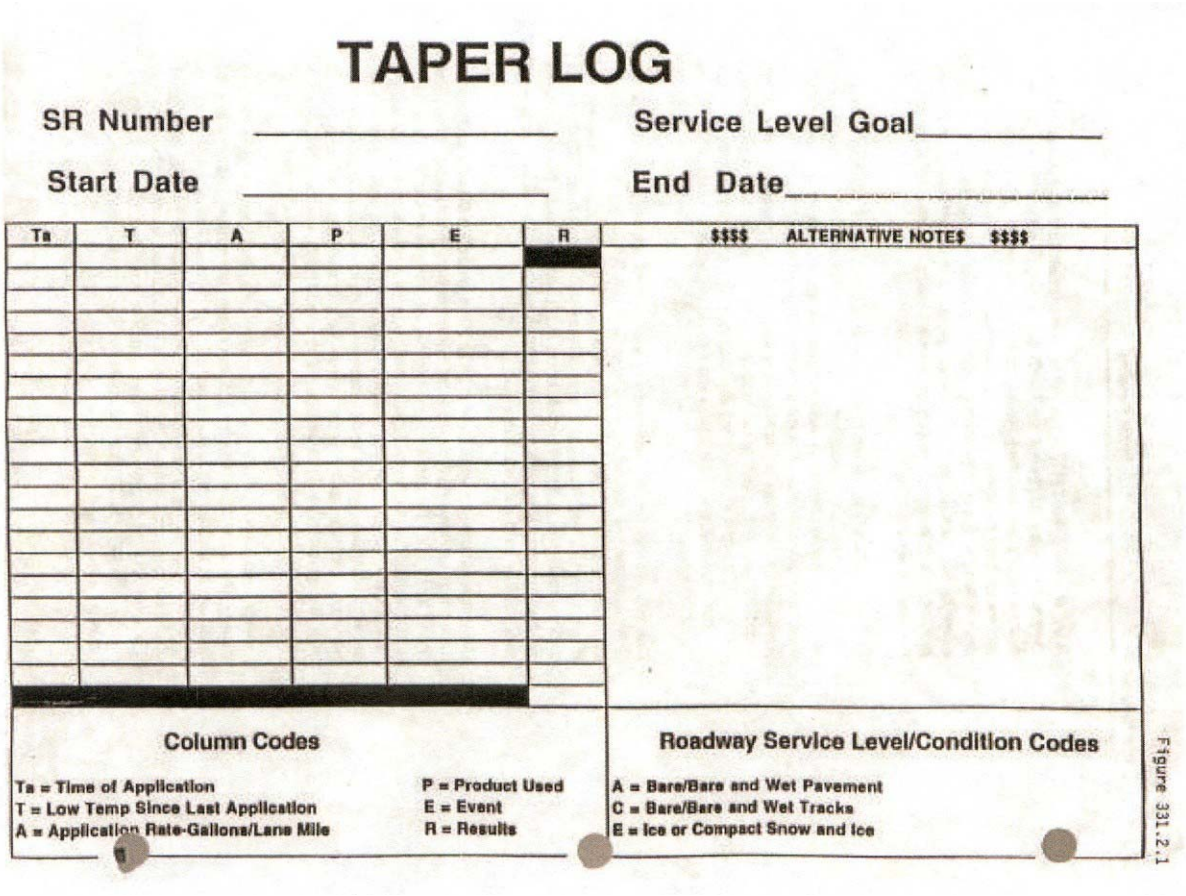
There are no requirements for secondary containment for normal storage where NO impact will occur off ITD property. An exception to that may be in District 1 where they comply with the local regulations about the sole source aquifer.

If there is a risk of off site impacts from a release of stored anti-icing material, two management techniques need to be considered.

1. Control methods to stop or divert any spills that have a potential to move off site across property lines or into storm drains or through culverts.

2. Installing secondary containment around storage areas near any waters of the US. The secondary containment must be able to contain a spill from the largest individual vessel. If the secondary containment area is open to rainfall, it shall include the volume of a 24-hour rainfall of a 25-year storm, and shall be made to drain rainwater.

Figure 331.2.1



TAPER LOG

SR Number _____ Service Level Goal_____

Start Date _____ End Date_____

Ta	T	A	P	E	R	$$$$ ALTERNATIVE NOTE$ $$$$

Column Codes

Ta = Time of Application
T = Low Temp Since Last Application
A = Application Rate-Gallons/Lane Mile
P = Product Used
E = Event
R = Results

Roadway Service Level/Condition Codes

A = Bare/Bare and Wet Pavement
C = Bare/Bare and Wet Tracks
E = Ice or Compact Snow and Ice

Figure 331.2.1

Pre-wetting anti-skid is a technique of spraying liquid chemical onto the anti-skid material as it is applied to the road. The idea is that the thin coating of liquid chemical on the anti-skid particles will begin to melt into the snow/ice floor and as it is diluted it will then refreeze, leaving the anti-skid particle partially imbedded in the snow/ice floor. When this procedure is done correctly, using just the right amount of chemical for the conditions, it essentially creates a sand paper effect with thousands of protruding anti-skid particles imbedded in the snow or ice floor.

This is a particularly cost-effective technique in areas that develop bonded snow floors that remain for days or weeks with little or no additional snow fall. It is also a good technique on roadways where high volume truck traffic tends to blow anti-skid material off the road after it is applied.

Similar to the anti-icing and deicing procedures, there is no set application rate which will work in all situations, rather application rates will need to be varied based on the type of anti-skid used, the outside temperature, and the rate of anti-skid being applied, among other factors. The idea is to get just the right amount of liquid on the particles to partially embed them in the snow pack:

- Too little LFPD and the particles will not embed deep enough to withstand traffic.

- Too much LFPD and the particles will melt deep into the snow floor leaving no part of the anti-skid particles protruding through the snow floor to create the sand paper effect.

To learn the proper technique takes some basic knowledge of the procedures and then experience using the procedure on the roads in your area.

A typical application rate is around 15 to 25 liters of LFPD per cubic meter of anti-skid (5 to 9 gal/cubic yard), but as noted above, this rate would need to be adjusted to meet the specific situation. It is recommended that you should start the application rate on the low side and after observing how it is working, move to higher rates as needed to get the proper embedment of the material.

Most of ITD's sander trucks are being equipped to be able to do the pre-wetting procedure. The sander trucks are being equipped with two 285 liter (75 gallon) saddle tanks for carrying the LFPD and ground speed controlled spreaders. The spreaders have spray nozzles to spray the LFPD onto the anti-skid material as it is being dropped to the spinner. The operator is able to set the amount of liquid per volume of sand and the ground speed control keeps the rate constant regardless of the speed.

331.3 Anti-Skid Materials

The application of anti-skid materials may improve the pavement traction condition and help to minimize skidding. When anti-skid materials will be reasonably effective, they may be applied to the travel lanes. On lightly traveled roads, the sander may be adjusted so that the full width of the pavement is covered in one operation from the right-hand lane. However, on roads having considerable traffic, every effort should be made to operate the sander so that the sand will be spread on only one lane at a time.

Operators must be reasonably cautious when applying anti-skid materials to ensure that it does not cause damage to passing vehicles. Sanders will be shut down when approaching on-coming traffic, or when there is a possibility of causing damage to nearby vehicles from flying sanding material. Each foreman shall train their operators in the application of anti-skid materials and refresh the training annually; emphasizing the importance of preventing tort claims. Warning lights shall be turned on prior to turning on the sander and shall remain on while the sander is in operation. When filling sanders care shall be taken to ensure that large rocks are not scooped up from the bottom of the stockpile and dumped into the sander. Sanders shall be filled so that the load is contained below the grates of the sander body and does not spill from the truck bed of tailgate sander. Excess material shall be removed from the surfaces of the unit so that it does not spill onto the roadway. Material used for anti-skid shall not be larger than 9.5 mm (3/8 in) maximum size, except in emergency situations when 9.5 mm (3/8 in) material is not available. Good judgment of existing conditions is required when determining the sanding method that will be used. The application rate of sand or sand/salt mixture should be determined commensurate with the weather conditions, type of abrasive, equipment used, etc. As temperatures fall, a deicing agent may be added to the anti-skid material to increase melting and sand embedment (see Section 331.2.1, Snow and Ice Control Using Liquid Chemicals).

In urban areas where large volumes of traffic and lack of snow disposal area make it impractical to plow snow, a complete melting may be considered. If heavy traffic volumes make it difficult to get spreading equipment back into the area, use a heavy initial deicer dosage (see Section 331.2.1). Melting the snow and ice is preferable to cleaning sand from the roadway surface and possibly the catch basins in areas where curb, gutter and storm sewer systems are present.

An application of anti-skid material with deicing agent at the initial stage of a snow storm will accelerate the subsequent snow removal process. This initial application will help to reduce the bond between the pavement and the underside of the ice-snow coating.

The following target gradations are to be used for anti-skid material.

TARGET GRADATIONS
(percent passing specified screen size)

Screen Size (mm)	Mountain	CMAQ*	Black Ice	Std	Rejects
3/8" (9.50)	100	100	100	100	100
1/4" (6.35)					
#4 (4.76)	0-40			0-70	
#8 (2.36)	0-10	0-40			
#30 (0.60)			0-25	0-30	
#100 (0.15)		0-2			
#200 (0.075)	0-5		0-5	0-10	

*Clean Material for Air Quality; also requires <45% L.A. wear.

Sanding Material Descriptions:

Mountain: Coarse, fairly clean material where frequent snowfall is common.

CMAQ: Clean material for use where air quality is a problem.

Black Ice: Medium coarse, fairly clean material for use in areas prone to black ice.

Standard: Cost-effective sanding, material crushed or screened to meet a gradation. Sieve sizes selected to preclude large quantities of fine sand.

Rejects: Specification requires 100 percent minus 9.5 mm (3/8 in) for use where practical, i.e., covered storage available and high fines do not cause equipment breakdown.

Fine material (that portion passing the #30 sieve) is assumed to blow off of the roadway from initial traffic and, therefore, does little to aid in skid resistance. Therefore, different road and traffic conditions may require different sanding material gradations.

High Traffic Volume Areas: In these areas use a cleaner, low percentage of minus #30 material.

Heavy Snow Areas: Sanding material should be fairly clean, with a high percentage near the maximum 9.5 mm (3/8 in) size.

Black-Ice Areas: Use a more graded sanding material, with a high percentage above the #30 so the material does not get blown off of the roadway.

Low to Moderate Traffic Areas: Can use rejects or naturally occurring material as long as fines are controlled to prevent breaking the feed chains in the sander.

Environmentally Sensitive Areas: These areas may require a CMAQ blend of sanding material. Check with your supervisor or the District Engineer for any requirements in these locations.

When clean sanding materials are used, the application rate should be reduced. For example, the application rate based on secondary rejects containing 50 percent minus #30 should be reduced by about 1/3 when using material with 25 percent minus #30. Application frequency should also be reduced in areas prone to snow squalls when using the coarser sanding material.

331.3.1 Salt and Sand/Salt Storage

In general, in the amounts used on the roads , salt produces no permanent ecological effects. However, improper use or storage of salt has the potential to harm roadside vegetation, aquatic life and water quality. Salt or sand/salt mixtures that are stored improperly can lead to an accidental release in to environment. Therefore, every effort should be taken to prevent the possibility of accidental release into the environment.

The proper storage and handling of salt and sand/salt stockpiles is a must. Whenever possible salt should be stored in covered building on an impervious surface. When a covered building is not available, use a waterproof tarp to cover the salt piles. Drainage from the area should be designed to divert runoff away from the structure or covered pile and to collect any contaminated material in lined evaporation pond.

Temporary measures can be used until more permanent solutions, such as structures and evaporation ponds can be constructed. Temporary measures include

- Stockpile should be placed on graded area designed to divert water away from stockpile.
- Gravel or earthen berms should be constructed to contain all stockpile runoff within ITD property.
- Waterproof tarp should be used to cover stockpiles.

331.4 Winter Road Condition Reporting

With the traveling public depending on the information about driving conditions, it is important to provide a service that is reliable, consistent and current.

- The State Communication Center (SCC) dispatchers will obtain highway condition and weather information from maintenance personnel in the field for the district reports. For speed and accuracy, the information may be recorded on Form DH-271.

- Once the information is obtained from the field, the districts or SCC, depending on who obtained the field data, will enter the data into the Road Report software on the ITD PC network. Once the data is entered and checked, an authorized Public Affairs staff person (or SCC in emergency situations) will click the "Post" button on the screen. Once the information has been "Posted," the information can be viewed in the Statewide Report.

- Public Affairs will record the information on the Headquarters phone system as soon as possible after the information has been "Posted" in the computer. Public Affairs will record the regional and statewide reports four times every day and any significant changes as described below when necessary.

- Any significant changes in the road or weather conditions that could affect public safety should be reported to Public Affairs (HQ) during regular business hours or SCC after hours when they happen and again when the situation is stabilized. Any unusual developments such as these should be reflected on the road report recorded message and posted to the Website, regardless of the time of day.

The road reporting times and responsibilities for the district offices, Public Affairs (PA) and State Communication Center (SCC) are detailed as follows.

ROAD REPORT UPDATE ACTIVITY

Activity	5:30 AM	9:00 AM	3:00 PM	7:00 PM
SCC obtains field reports	X	X	X	X
SCC updates road report software	X	X	X	X
PA (or SCC in an emergency) posts statewide report	X	X	X	X
PA records regional and statewide road report on 1-800 phone system	X	X	X	X

331.5 Winter Signing and Delineation

Special winter signing can be of great assistance to the highway user.

Although, it should be evident to most users traveling in a snow area that snowplows will be operating, the signs may further alert them. All signing should be in accordance with the M.U.T.C.D. Manual. Snowplow operation signs should be considered for narrow highways with poor alignment. Signing for icy spots must not be confused with the normal signing for slippery when wet. These signs are for two entirely different conditions.

"WATCH FOR ICE" signs should be used with discretion and only in areas of a prolonged condition such as shaded areas which seldom thaw during the day.

Bridges that have a history of ice should be posted with the standard "BRIDGE MAY BE ICY" sign.

At higher elevations where a series of frost heaves may occur, a "FROST HEAVES AHEAD" sign may be used. Individual locations should be marked with the OM-1 Object Marker.

Installation of snow poles is recommended where snow depths may frequently exceed two feet and drifting conditions are prevalent. Normally snow poles are not needed on tangent sections, but each location should be evaluated independently.

Routes designated for Winter Maintenance Standard Levels 3, 4 and 5 should be posted if limited maintenance operations are in effect.

331.6 Winter Maintenance of Truck Escape Ramps

Truck escape ramps may require additional maintenance during winter-like conditions. Approaches must be kept reasonably clear of snow and ice to provide errant vehicles access to the ramps.

Winter maintenance of ramp:

- Salt ramp as required. The normal application rate is 2.44 kg (4-1/2 lbs) per square meter (square yard).
- Spray liquid deicer as required. Use an application rate of 240 L/ln-km (100 gal/ln-mile) and check to see if the chemical penetrates to full depth. If not, apply a second application.
- If excessive freezing occurs, it may be necessary to break up the surface using a front end loader with a 406 mm (16 in) harrow-type attachment. Follow the recommended procedure given under Section 5-257 of the Maintenance Manual. Reapply salt or liquid deicer chemical as required.

331.7 Snowplowing Outside of State Highway Boundaries

The State Highway Administrator may designate specific locations where snowplowing may be done outside State Highway boundaries under these conditions:

- State highways must be open for vehicular traffic before any other snowplowing can be done.
- Snow clearing may be done only as personnel and equipment become available and at locations adjacent to and abutting the right-of-way line. Generally, this service will be limited to publicly used facilities, such as post office, schools, parking turnouts, etc., where no personal benefit can accrue to any one person or business.
- Commercial approaches may be cleared in isolated areas if essential to motorist safety and service.
- This kind of snowplowing is not intended to infringe on commercial snowplowing or to deter localities from acquiring their own snow removal equipment.

District Engineers may submit recommended locations to the State Highway Administrator for his approval before any of the above work is done. Refer to Administrative Policy A-05-25.

340.0 POLICY DURING SPRING BREAKUP SEASON

340.1 Authority

Section 49-1005 *Idaho Code* provides authority whereby the Idaho Transportation Board may reduce allowable weight or size or permissible speeds of vehicles traveling on state highways if it is the opinion of the Board that operation of vehicles of legal weight or size or at legal speed limits will cause damage to the road by reason of climatic or other conditions or will interfere with the safe and efficient use of the highway by the traveling public.

When load and speed restrictions are applied, it is required that the Division shall erect and maintain signs designating the limitations of weight, size, or speed at each end of such highway or section and at intersections with main travel ways. The restrictions are normally required throughout the spring breakup season that can start in January in lower elevations and extend through May at high elevations.

340.2 Type of Load Restrictions

Depending upon the type of road construction, the amount of moisture, temperature conditions, and severity of frost heaves and breakup, routes or sections of routes will be posted for restricted loadings to one of the following categories as required to protect the roadway and in the interests of public safety.

1. Maximum of legal allowable weight.
2. Maximum of 7,250 kg (16,000 pounds) on any axle.
3. Maximum of 6,350 kg (14,000 pounds) on any axle.
4. Maximum of 5,450 kg (12,000 pounds).

340.3 Width Limitation on Two-Lane Road

A spring breakup weight restriction to less than legal weight shall automatically place a restriction on width allowed by special permit. On any section of highway restricted to less than legal weight, the maximum width by special permit shall be restricted to 3.8 m (12 feet 6 inches) during the period of the weight restriction.

340.4 Speed Restrictions

On those sections of highways which are posted for a maximum of legal loads, or to less than legal loads, trucks and buses with a gross weight of 10,000 pounds (4540 kg) or more will be restricted in critical areas to a maximum speed of 30 miles per hour (50 km/h). Restricted speed zones will be marked by red and yellow markers. A red marker will mean speed is restricted to 30 miles per hour (50 km/h) and a yellow marker will mean that legal speed may be resumed. These markers will generally be attached to existing highway sign posts and when properly used will afford protection to the highway subgrade and surface as well as speeding the flow of traffic.

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340.5 Special Permit Policy During Spring Breakup

See *Overlegal Permit Condition Manual*, Chapter 14, Spring Breakup Policy.

340.6 Legal Weight Limits Maintained on Certain Highways

The policy of the Department will be to maintain legal load limits on the Interstate highway system and on the arterials servicing through state traffic or connecting major termini, which are listed below, unless conditions are such that severe breakup will result.

US-2	Washington Line to Priest River
SH-7	Orofino to Ahsahka
SH-8	Moscow to Washington Line
US-12	Washington Line to Kooskia
SH-16	From Jct. SH-44 to Emmett
US-20	Oregon Line to Caldwell
US-20	From A.E.C Jct. US-20/26 to Idaho Falls to Rexburg
SH-21	Boise to Robie Creek Jct. M.P. 22
SH-24	Rupert to Jct. I-84
SH-25	Jct. I-84, Jerome to Rupert
US-26	Bliss to Gooding

US-26	From A.E.C Jct. US-26/20 to Blackfoot & Idaho Falls - Beeches Corner
SH-27	From Burley to Paul
US-30	Oregon/Idaho border to Idaho/Wyoming border
SH-33	Howe to Sage Jct., SH-33/I-15
SH-34	Cleveland Bear River Bridge M.P. 30.84 to Alexander Jct. SH-34/US-30
SH-39	Aberdeen to Blackfoot
SH-43	Beaches Corner, Jct. US-26 to Ucon
SH-44	Jct. I-84 north of Caldwell to Boise
SH-46	Wendell Jct. I-84/SH-46 to Gooding
SH-50	Jct. I-84 to Jct. US-30 east of Twin Falls
SH-53	Washington/Idaho border to Garwood Jct. SH-53/US-95
SH-55	Marsing, Jct. SH-55/US-95 to Nampa, Jct. I-84
SH-75	Shoshone to Hailey
SH-81	Burley to Malta
US-91	Utah/Idaho Line to Idaho Falls
US-93	Nevada/Idaho Line to Shoshone
US-95	Oregon/Idaho Line to Marsing
US-95	Jct. I-84 to Grangeville
US-95	Craigmont to Moscow
US-95	Coeur d'Alene to Sandpoint

In certain situations, such as when the breakup period coincides with the spring planting or spring log haul, etc., it may be more appropriate to impose speed restrictions rather than weight restrictions if at all practicable. In these situations, the District should make every effort to work with the transportation industry in establishing the most reasonable restrictions. Contact the Maintenance Supervisor when there is a question regarding the appropriateness of load or speed restrictions.

340.7 Method of Informing Interested Parties

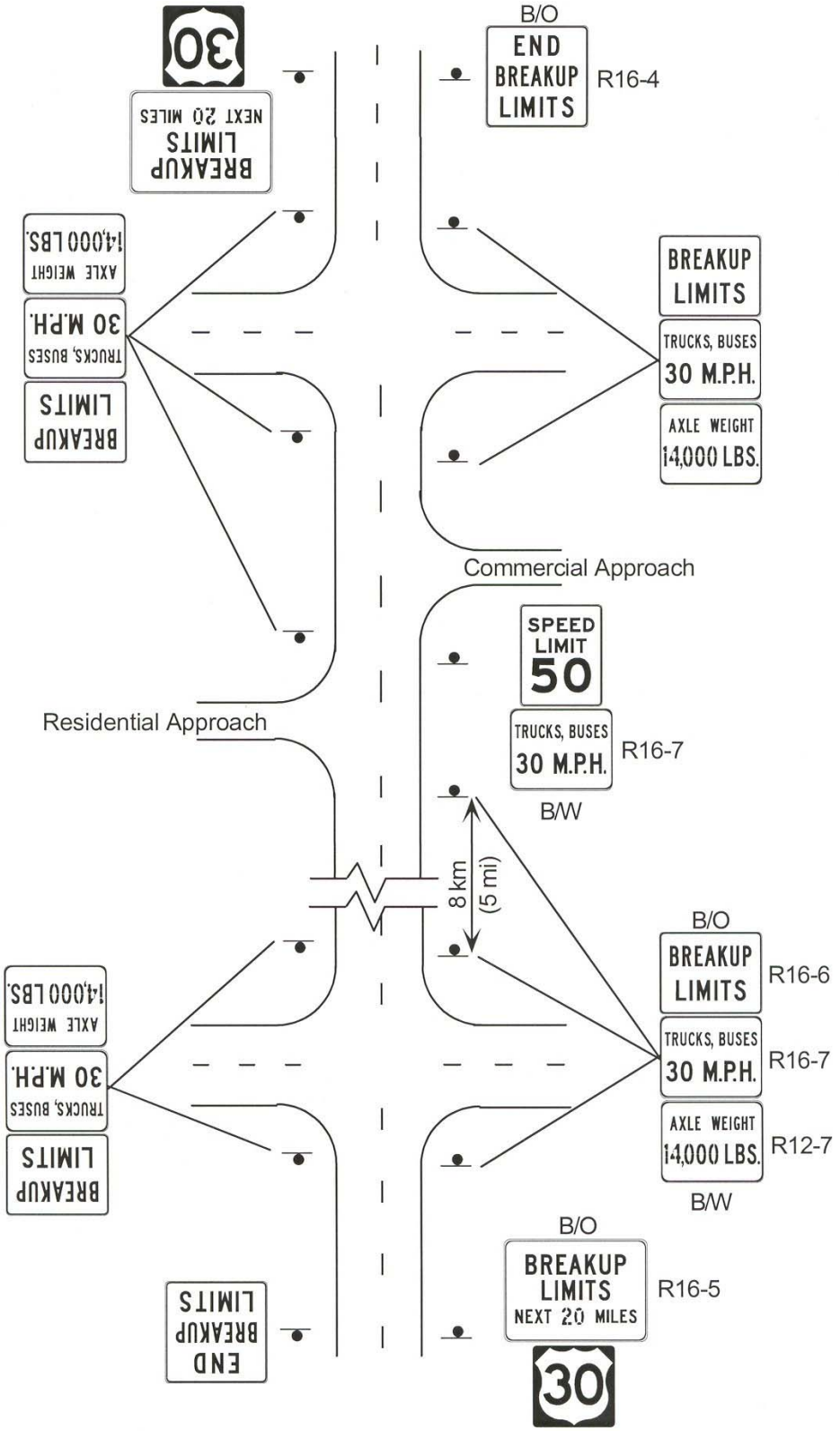
The District Maintenance or Regional Engineer is responsible for initiating the load and/or speed limit restrictions for their particular area. The District initiates the action by a telephone call from the District to the Division of Motor Vehicles, POE/ Permit Office. Once notified, the Permit Office is responsible for notifying interested parties by issuing the load limit bulletin. The load limit bulletins are processed on Tuesday and Fridays. In order for the restrictions to go into effect within three days, additions and deletions to the bulletin must be called in prior to 11:00 a.m. on these days.

The effective date for the additions will be three days from the publish date of the bulletin. If the bulletin is published on Tuesday it will be effective on Friday. If the publish date is on Friday, the effective date is on Monday.

Once the Permit Office has been notified, the district is responsible for erecting the required signing as mentioned in Section 340.1 (see figure 340.7). The required signing should be in place the day before enforcement begins.

Port-of-Entry personnel will begin enforcement of the posted weight limits three

Fig 340.7


B/O
END
BREAKUP
LIMITS
R16-4
BREAKUP
LIMITS
TRUCKS, BUSES
30 M.P.H.
AXLE WEIGHT
14,000 LBS.
Commercial Approach
SPEED
LIMIT
50
TRUCKS, BUSES
30 M.P.H.
R16-7
B/W
Residential Approach
8 km
(5 mi)
B/O
BREAKUP
LIMITS
R16-6
TRUCKS, BUSES
30 M.P.H.
R16-7
AXLE WEIGHT
14,000 LBS.
R12-7
B/W
B/O
BREAKUP
LIMITS
NEXT 20 MILES
R16-5
30

days after the publish date of the bulletin.

When restrictions are removed, the action will often be effective immediately in which case the District personnel should immediately remove the load and speed restriction signs. When such signing is to be removed the District Maintenance or Regional Engineer shall advise by phone the Permit Office and Weigh Station officers in the affected area to prevent erroneous issuance of citations.

Load and speed bulletins will be numbered consecutively each season. Each bulletin will be cumulative and will list all sections of highway subject to a load and/or speed restriction at the time the bulletin is issued.

340.8 Temporary Suspension of Posted Weight and Speed Restrictions

Spring breakup restrictions are required because of a seasonal characteristic in which freeze/thaw cycles occur, making the roadway unstable and reducing its load-bearing capability. The load bearing capacity may be temporarily restored by a freeze-up of the pavement after a section has been posted for load and speed restrictions.

District Engineers may provide a temporary waiver of the spring breakup restrictions by posting GREEN markers on the speed limit signs, and on other signs, if appropriate, within a section of highway posted for reduced loads. In addition to posting green markers, a twice-daily status of the posted section will be provided by the area Maintenance Foreman to the District Maintenance Office, who will notify area State Police, Ports of Entry, and the local Sheriff's office.

340.9 Special Allowances for Emergency and Critical Service Vehicles

See *Overlegal Permit Condition Manual*, Chapter 14, Spring Breakup Policy.